REMARKS

Claims 11 and 14-22 are pending in this application, of which claim 11 has been amended to incorporate the limitations of claim 1, and claims 14-22 have been added whose basis is found at cancelled claims 2-10, respectively. Claims 1-10, 12 and 13 have been cancelled in this Response.

(1) Claims 1-7 were rejected under 35 U.S.C. §102(b) as being anticipated by U.S. Patent No. 6,204,365 to Saito et al. Claims 1-6 were rejected under 35 U.S.C. §102(b) as being anticipated by U.S. Patent No. 5,492,996 to Dang et al. Claims 1-5 were rejected under 35 U.S.C. §102(b) as being anticipated by U.S. Patent No. 5,498,784 to Arnold et al. Claims 1-7 were rejected under 35 U.S.C. §102(b) as being anticipated by JP 11-322929 to Toyobo Co Ltd. Claims 1-5 were rejected under 35 U.S.C. §102(b) as being anticipated by JP 2000-290374 to Central Glass Co Ltd., hereinafter "Central Glass." Also, claims 8-10 were rejected under 35 U.S.C. §102(b) as being anticipated by or, in the alternative, under 35 U.S.C. §103(a) as obvious over each of the references.

Claims 1-10 have been cancelled, so these rejections should be made moot.

(2) Claims 11-13 were rejected under 35 U.S.C. §103(a) as being unpatentable over Central Glass.

(i) Claim 11 has been amended to incorporate the limitations of claim 1.

(ii) Central Glass (JP2000-290374) discloses poly(benzoazoles) as represented by formula 1, but the poly(benzoazoles) of Central Glass is prepared for the application of semiconductor parts, having a low coefficient of thermal expansion and a low dielectric constant ([0003]). The objective of the invention of Central Glass is to provide a fluorine-containing polybenzoxazole having a low dielectric constant and a low coefficient of thermal expansion while maintaining sufficient mechanical strength, thermal stability and other properties ([0007]), which could be mainly used as protective films for semiconductor parts. Although Central Glass discloses at paragraph [0058] that the fluorine-containing polybenzoxazole can be used as an insulating material of electrical and electronic components and as a coating material of optical components, there is no suggestion that the disclosed polybenzoxazole can be used as an optical material or optical element for optical waveguide. The properties called for the protective film or coating material for optical components are different from the properties called for the transparent resin for the optical waveguide, that is, an excellent transparency to the light rays falling within the near infrared region, a slight change in refractive index and rate of birefringence in the wavelength used for the measurement thereof falling within the near infrared

region, a low rate of birefringence that is one of the important optical characteristics and high heat resistance.

Central Glass does not disclose that the polybenzoxazole is transparent. It is considered that the disclosed polybenzoxazole is not transparent to the extent that it can be used as a resin for the optical waveguide, because Central Glass merely suggests that the disclosed polybenzoxazole can be used as an insulating material of electrical and electronic components and as a coating material of optical components.

(iii) As described at page 1, line 10 to page 2, line 9, fluorine-containing polyimides have been developed as an optical material for optical waveguide. However, since the variety of the monomers for the polyimides is limited so that it was difficult to prepare polyimide resins having good transparency and birefringence property. On the other hand, polybenzoazoles such as polybenzoxazoles and polybenzothiazoles have never been used as optical resins for optical waveguide. Although polybenzoazoles having bulky structures was known to have excellent transparency to the visible light rays, as disclosed in JP-A-11-322929, they are inferior in the transparency to the light rays having wavelength within the near infrared region used in the field of the optical waveguide.

The present invention is based on findings by the inventors that the specific poly(benzoazole) compound as represented by general formula (I) is excellently transparent to the light rays falling within the near infrared region. In addition, the claimed compound shows a slight change in refractive index and rate of birefringence in the wavelength used for the measurement thereof falling within the near infrared region, a low rate of birefringence that is one of the important optical characteristics and high heat resistance. Thus, the inventors of the present invention found that the compound is suitable for a resin for optical waveguide which is used in the wavelength region for optical communication.

(v) Thus, the invention of claim 11 is not obvious over the teachings of Central Glass. In view of the above, claims 11 and 14-22, as herein amended, are in condition for allowance. Applicants request such action at an early date.

(3) If the Examiner believes that this application is not now in condition for allowance, the Examiner is requested to contact Applicants' undersigned representative at the telephone number indicated below to arrange for an interview to expedite the disposition of this case.

In the event that this paper is not timely filed, Applicants respectfully petition for an appropriate extension of time. The fees for such an extension or any other fees that may be due with respect to this paper may be charged to Deposit Account No. 50-2866.

Respectfully submitted,

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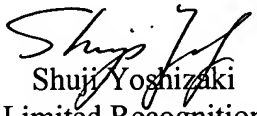

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